OFFICE OF THE SECRETARY OF DEFENSE

9-26-77

Memo For Mr. Von Stein

Paul,

Here is the navy letter and material that I referred to in our meeting w/ Herb Dixon.

Please look it over and give me a call at your convenience.

Rm 3C-283

John Hoover
O.D. ASD(ISP)
Pentagon
227-7641
227-5565

NAVY review completed.

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON, D.C. 20350

IN REPLY REFER TO
Ser 009D332/168176
27 MAY 1977

MEMORANDUM FOR THE DEPUTY ASSISTANT SECRETARY OF DEFENSE (SECURITY POLICY)

Subj: Destruction of classified material

Ref: (a) DOD 5200.1-R, 9-101

Encl: (1) Exemplar of 3/32-inch residue
(2) Exemplar of 1/8-inch residue

1. As a matter of policy, reference (a) stipulates that pulverization is an acceptable method for destroying classified material provided the process is sufficient to preclude the reconstruction of the residue. In keeping with that expression of policy, classified material pulverizing equipment listed on the Federal Supply Schedule is required by an Interim Federal Specification (FF-S-001169) to be equipped with a security screen having an aperture size no larger than 3/32-inch. While such a security screen does, unquestionably, provide the degree of destruction required, the extremely small aperture size severely restricts equipment efficiency, e.g., the rate of destruction.

Note: This is wrong spec, it covers shredders! Correct spec is Fed Spec FF-P-00810A w/Amendments

2. During the past several years there has been an increased emphasis upon the use of mechanical destruction systems. Such an emphasis stems from the obligation imposed by the Clean Air Act to abide by local, state, and Federal laws and as a result of the General Services Administration (GSA) canceling all contracts for the procurement of incinerators through the National Supply System based upon the discontinuation of the incinerator testing and certification program that was previously administered by the Environmental Protection Agency. To meet the accompanying challenge, equipment efficiency must be markedly improved without a concomitant adverse effect upon security.

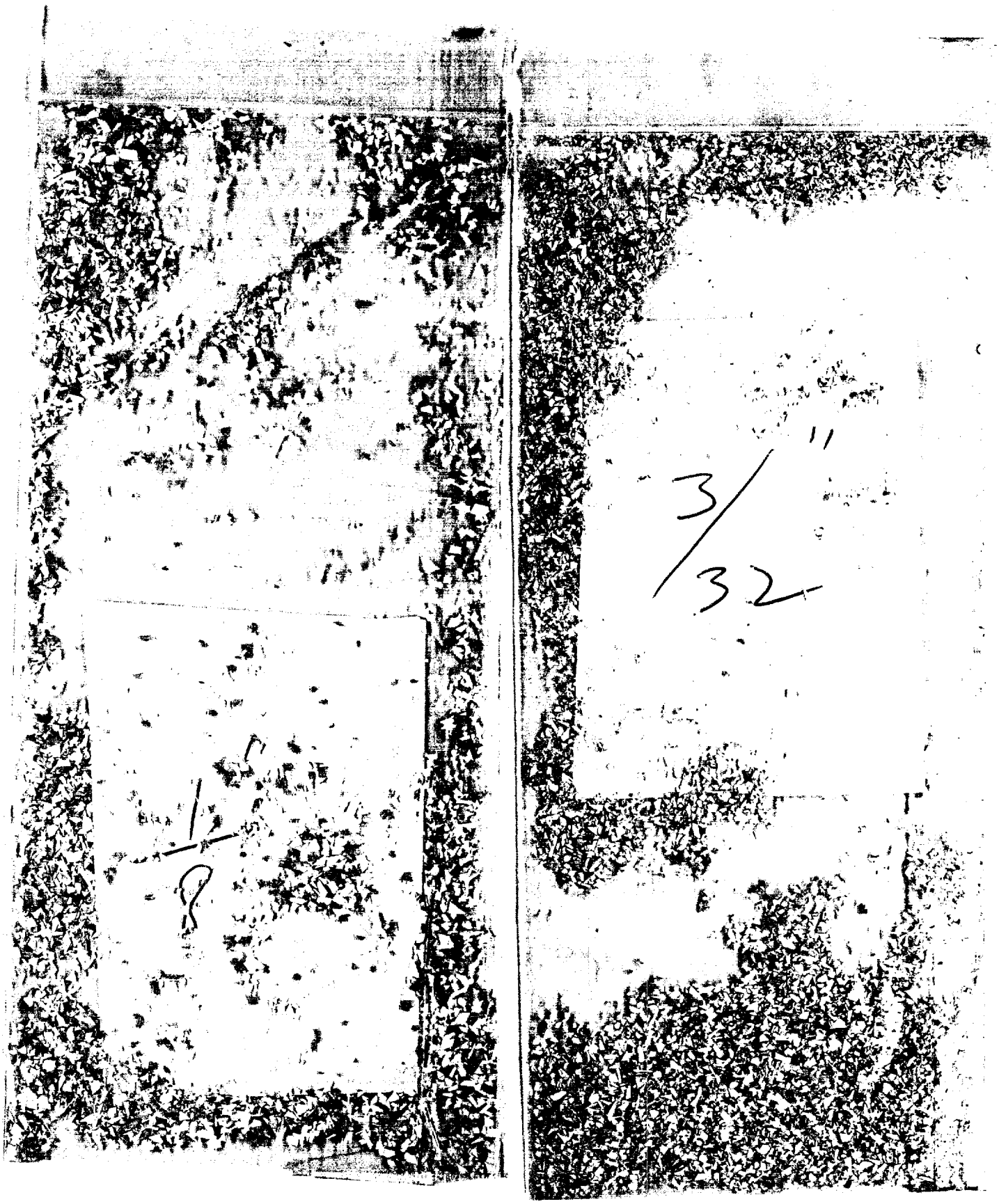
3. A study conducted within the Department of the Navy determined, inter alia, that the destruction rate of dry pulverizing equipment is increased by 50 percent when using a screen with 1/8-inch apertures as opposed to when using a screen with 3/32-inch apertures. From an examination and comparison of the residue produced using both size aperture screens, enclosures (1) and (2) respectively, there does not appear to be any material security advantage attendant to the use of the security screen having the smaller and more restrictive aperture size.

SP-P 181-77

4. In view of the foregoing, Department of the Navy security policy is being revised to permit the use of dry pulverizing equipment fitted with a 1/8-inch aperture security screen for the destruction of classified material less, of course, microform media. Thus, and for the aforementioned reasons, it is recommended that a 1/8-inch aperture security screen size be adopted as the Department of Defense standard for dry pulverizing equipment which is used to destroy classified material and that the GSA be encouraged to revise FF-S-001169 accordingly.

R. L. WELCH
Deputy Director, Security of
Military Information Division

Copy to w/o enclosures (1) and (2):
U. S. Army
U. S. Air Force



Enclosures 1 & 2

WET TYPES

Rec'd: [redacted] SEP [redacted]

FF-P-00800A(GSA-FSS)
AMENDMENT-2
June 15, 1972
SUPERSEDING
AMENDMENT-1
March 22, 1972

AMENDMENT
TO
INTERIM FEDERAL SPECIFICATION

PULPING MACHINE, PAPER,
CLASSIFIED WASTE
(SECURITY)

This amendment was developed by General Services Administration, Federal Supply Service, Standardization Division, Washington, DC 20406, based upon currently available technical information. The General Services Administration has authorized this amendment as part of Interim Federal Specification FF-P-00800A, dated March 1, 1971.

PAGE 1

Paragraph 1.1 - Delete text in its entirety and substitute the following:

"This specification covers paper pulping machine which are designed to conform to the standards for security equipment as set forth in the 'National Security Council Directive Govering The Classification, Downgrading, Declassification And Safeguarding Of National Security Information.' The pulping machines are intended for use as specified by the user activity."

PAGE 2

Paragraph 2.1 Military Specifications: - Delete "MIL-I-2660 - Interference Control Requirements."

Paragraph 2.1 Military Standards: - Add "MIL-STD-461 - Electromagnetic Interference Characteristics, Requirements for Equipment."

PAGE 5

Paragraph 3.7 - Delete text in its entirety and substitute the following :

"Electromagnetic interference suppression. The machine shall comply with the requirements of MIL-STD-461 for class IIB equipment."

PAGE 7

Paragraph 4.4.6 - Delete text in its entirety and substitute the following:

"Electromagnetic interference test. The machine shall be tested for compliance with class IIB equipment as specified in MIL-STD-461."

GSA OC 72-[illegible]

FSC 3615

FF-P-00800A(GSA-FSS)
March 1, 1971
SUPERSEDING
Int. Fed. Spec. FF-P-00800(GSA-FSS)
May 17, 1965

INTERIM FEDERAL SPECIFICATION

PULPING MACHINE, PAPER, CLASSIFIED WASTE (SECURITY)

This Interim Federal Specification was developed by Standardization Division, Federal Supply Service, General Services Administration, Washington, D.C. 20406, based upon currently available technical information. It is recommended that Federal agencies use this document in procurement and forward any recommendations for changes to the preparing activity at the address shown above.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers paper pulping machines which are designed to meet the document destruction criteria for classified information set forth in Executive Order 10501, as amended, "Safeguarding Official Information in the Interest of the Defense of the United States." The machines are intended for use as specified by the user activity.

1.2 Classification. The paper pulping machines under this specification shall be of the following types and sizes, as specified (see 6.1).

Type A - Electric motor.
Type B - Gasoline engine.

Size 1 - 100 lbs/hr, continuous operation.
Size 2 - 200 lbs/hr, continuous operation.
Size 3 - 400 lbs/hr, continuous operation.
Size 4 - 1000 lbs/hr, continuous operation.

2. APPLICABLE DOCUMENTS

2.1 The following documents of the issues in effect on the date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

Federal Specifications:

CC-M-641 - Motors; Alternating Current, Integral Horsepower.
QQ-I-666 - Iron Castings, Malleable.
TT-C-490 - Cleaning Methods and Pretreatment of Ferrous Surfaces for Organic Coatings.
PPP-B-601 - Boxes, Wood, Cleated-Plywood.
PPP-B-621 - Boxes, Wood, Nailed and Lock-Corner.
PPP-B-636 - Boxes, Fiberboard.
PPP-B-640 - Boxes, Fiberboard, Corrugated, Triple Wall.
PPP-C-650 - Crates, Open and Covered.
PPP-T-76 - Tape, Pressure-Sensitive Adhesive Paper, Water Resistant (for carton sealing).

Federal Standard:

Fed. Std. No. 123 - Marking for Domestic Shipment (Civil Agencies).

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402.

(Application for copies should be addressed to the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.)

3.1 Preproduction sample. Before production is commenced, a preproduction sample of the finished commodity shall be submitted or made ready for approval of the contracting officer or his authorized representative for inspection and tests to determine compliance with the specification (see 4.2). The contractor shall notify the designated Regional Quality Control Division set forth in the notice of award of the availability of the sample. The approval of the sample authorizes the commencement of production, but does not relieve the contractor of responsibility for compliance with all applicable requirements of this specification. Production units shall not vary from the approved preproduction sample in design or construction without written approval of the contracting officer.

3.2 Material and components. All material and components for the pulping machines shall be new and the machines shall be the manufacturer's latest design current at the time of delivery, except for such modifications as may be necessary to conform with the requirements of this specification. The machines shall be complete with all accessories for satisfactory operation.

3.3 Protective coating. The use of any protective coating that will crack, chip, or scale with age or extremes of climate and environmental conditions shall be avoided. Materials that are not nutrients for fungi shall be used to the extent practicable. Where such material that are nutrients for fungi must be used, such material, when specified (see 6.1), shall be treated with a fungicidal agent acceptable to the procuring activity.

3.4 Design and construction. The pulping machine shall be designed and constructed so that the processed paper (residue) shall be pulped to a consistency that is impossible to reconstruct as recognizable information (see 4.4.1). The frame for the machine, the pulping tank, masticating unit, water unit, dewatering unit, and water return unit shall be as specified herein. Parts subject to cleaning shall be easily disassembled without the use of special tools. Parts shall be protected against objectionable corrosion. The machine shall be suitable for masticating both wet and nonwet strength paper with the addition of water into a uniform pulp consistency not to exceed two percent. The machine shall be of rigid construction, free from objectionable vibration and noise. The design shall be such that fire, electrical, and explosion hazards are minimized.

3.4.1 Frame. The frame shall be of a strength suitable for supporting the pulping tank, dewatering unit, and water return unit when operating at full load. The frame shall be drilled for a minimum of four holding down bolts not less than 5/8-inch diameter.

3.4.2 Pulping tank. The pulping tank shall be constructed of stainless steel or mild steel, as specified by the purchaser (see 6.1). The tank sheet thickness shall be adequate to provide the proper rigidity and to permit the proper functioning of the machine without objectionable metal corrosion. The tank heads shall be of a thickness to correspond with the tank wells. Trunions, when used, shall be made of steel, or cast iron conforming to QQ-I-666, and shall be welded, bolted, or riveted to the bottom tank head. The top tank head shall be constructed so that it will act as a splash guard and shall be hinged for easy access to the inside of the tank. On machines which are operated at capacities in excess of 400 pounds per hour, a side feed mechanism shall be provided to permit rapid and easy loading. A dumping valve shall be provided for all machines to facilitate emptying the tank when the machine is shut down.

3.4.3 Masticating unit. The masticating unit shall consist of an impeller surrounded by a perforated screen or ring through which the pulp must pass before it is taken from the machine. The impeller shall be a circular steel or cast iron plate attached to a shaft connecting it to the motor (or engine). The faces of the impeller which come in contact with the mixture of water and paper shall have hardened teeth or tungsten carbide chips or a combination thereof which when rotated at high speed shall cause the paper to break down its fibers by abrasive action. The perforated screen or ring shall be circular and shall have a minimum clearance to the impeller. The perforations shall not exceed 1/4-inch diameter and shall be spaced to provide the best working surface.

3.4.3.1 Moisture seals. The shaft of the masticating unit shall have moisture seals. The seals shall be replaceable and shall prevent excessive leakage to the bearings or from the pulping tank.

3.4.4 Water unit. The water unit shall consist of an inlet permanently attached to the pulping tank and a valve for control of the amount of water to be admitted with proper fittings for connection to the water source. The inlet, valve, and fittings shall be of a size to permit maximum operation of the pulping machine. The inlet shall prevent any back siphonage or back flow of water, or any contamination of the water supply source.

3.5.4 Shaft and coupling. Shaft and coupling shall be of the standard commercial type and shall be in accordance with the recommendations contained in Kent's Mechanical Engineers' Handbook.

3.5.5 Guards. Guards shall completely enclose all gears, V-belts, and chains. Where access to bearings is necessary for lubricating purposes, guards shall be fitted with access holes having hinged covers that may be secured in the closed position. Sufficient clearance shall be maintained between the guards and the machine to provide adequate ventilation.

3.6 Electric motors and gasoline engines.

3.6.1 Pulping machine motor. The pulping machine motor supplied with type A machines, shall conform to applicable requirements of CC-M-641, and shall be in accordance with NEMA standards. Unless otherwise specified, the motor shall be a self-cooled, class B, splash-proof, 3 phase, 60 cycle, 220/440 volt, squirrel cage induction motor. Motors for use in overseas installations shall be supplied for electrical characteristics and ratings specified by the procuring activity (see 6.1). All motors shall be capable of developing sufficient power to maintain continuous full load output without exceeding the applicable temperature requirements of CC-M-641.

3.6.1.1 Motor starter switch. The motor starter shall be a general purpose starter for alternating current motors and shall be in accordance with the requirements of MIL-S-12514, Type I, Class 2.

3.6.2 Gasoline engines furnished with type B machines shall be in accordance with the requirements of MIL-E-11275. The engine selected for each capacity shall be of sufficient power to operate the pulping machine and any auxiliary equipment necessary for efficient operation of the pulping machine at full load without overload.

3.6.3 Electrical wiring. Unless otherwise concealed or protected, all electrical wiring shall be done in rigid metallic conduit or in substantial electric metallic tubing. The AC control voltage shall be obtained from a transformer with an isolated secondary winding. The control start-stop switch shall be securely mounted, wired and installed in a position convenient to the operator. Power and control wiring shall comply with National Electrical Code #70 of the National Fire Protection Association.

3.7 Radio interference suppression. The machine shall comply with the requirements of MIL-I-26600 for class IV equipment.

3.8 Height. The maximum height of the pulping machine shall be as follows:

SIZE	HEIGHT-OVERALL (MAXIMUM-INCHES)
1	60
2	72
3	84
4	108

3.9 Lubrication. Lubricating fittings shall be provided for all bearings and masticator shaft seals. Lubricants shall be prevented from entering the pulping tank. All lubricants used shall be suitable to the varied climatic conditions likely to be encountered in areas where the pulping machine is used.

3.10 Pretreatment, color and finish. All exterior ferrous metal surfaces shall be prepared for painting in accordance with any of the types in TT-C-490. The color shall be the manufacturer's standard and the finish coat shall be applied in accordance with good commercial practices. The interior surfaces of corrosion resistant metal shall not be painted.

3.11 Identification label. A metallic identification label shall be securely affixed to an external surface of the machine. The label shall show the machine's model and serial number, year of manufacturer, manufacturer's name or trademark, and Government contract number. Lettering on labels shall be clear and legible and shall resist erasure.

3.12 Parts and interchangeability. Parts subject to replacement because of wear or accidental damage shall be available from the manufacturer. All replaceable parts shall be manufactured to definite standards, tolerances, and clearances so that parts may be replaced or adjusted without modification. To the extent possible, all parts shall be permanently and legibly marked with the manufacturer's parts number.

GENERAL SERVICES ADMINISTRATION - FEDERAL SUPPLY SERVICE

SPECIFICATION COMMENT SHEET

BUDGET BUREAU NO. 29-R0175

INSTRUCTIONS

This form provides a way for users of this specification to inform the originator of problems encountered in its use. It is not to be used to request changes to accommodate proprietary features. All comments will be considered and appreciated, but please do not expect a reply. To comment: detach, complete, and mail to: General Services Administration, FSS (FMSO), Wash., DC 20406.

NOTE: Comments on this form do not constitute or imply authorization to waive any part of the document or serve to amend contractual requirements.

1. SPECIFICATION

FF-P-00800A(GSA-FSS) Pulping Machine, Paper, Classified Waste (Security)

2. CONTRACT NO. *(If any)*	3. QUANTITY ON CONTRACT *(Optional)*	4. DOLLAR VALUE *(Optional)*

5. GENERAL NATURE OF PROBLEM *(e.g., inspection difficulties, manufacturers unable to meet tolerances, containers collapse under normal warehousing conditions, etc.)*

6. SPECIFIC REQUIREMENTS AFFECTED *(Include paragraph number and lines of wording)*

7. SPECIFIC PROBLEMS *(e.g. tests in 4.2.2 will not assure that the battery will last required time; temperature ranges in table 2 do not conform to commercially available items.)*

8. RECOMMENDATIONS

9. NAME OF MANUFACTURER, ASSOCIATION, GOVT., AGENCY, ETC.	10. ADDRESS *(Number, Street, City, State and Zip Code)*

11. NAME AND TITLE OF SUBMITTER	12. DATE

FORM GSA FEB 69 2200

4.4.2 Dielectric test. The machine shall be operated until it reaches normal operating temperature and then disconnected from the electrical supply circuit. A potential twice the rated voltage plus 1000 volts, 60 cycle, alternating current shall be applied between the current carrying parts and the non-current carrying parts. The insulation of the machine shall withstand this test for one minute without insulation breakdown.

4.4.3 Dewatering test. The dewatering unit of the machine shall be tested in conjunction with the capacity test in 4.4.4. A sample shall be taken once every 15 minutes for one hour for examination to determine the amount of water present in the sample. The dewatering unit shall remove a mininum of 50 percent by weight from an initial consistency of two percent of the water from the pulp.

4.4.4 Capacity test. The machine shall be tested for a period not less than one hour to determine its hourly capacity. The machine shall attain its rated capacity when a mixture of 75 percent non-wet and 25 percent wet strength is used.

4.4.5 Leakage test. The completely assembled machine with all drainage valves closed shall be filled to capacity with water and allowed to stand in this condition for 24 hours. The machine shall show no evidence of leakage during this period.

4.4.6 Radio interference suppression test. Machines shall be tested for compliance with class IV machinery in MIL-I-26600.

4.4.7 Inspection. The inspection shall consist of visual examination of the completely assembled machine to determine compliance with workmanship requirements of this specification.

4.5 Results of tests. Any pulping machine failing to meet the preproduction or acceptance requirements of this specification will be rejected. Rejection shall not preclude the manufacturer from correcting the condition which forms the basis for rejection, and from reworking a rejected part to remedy such defects for resubmission to inspection and test. All units and parts so reworked shall be indicated to the Government inspector.

5. PREPARATION FOR DELIVERY

5.1 Preservation and packaging. Preservation and packaging shall be level A, B or C as specified (see 6.1).

5.1.1 Level A.

5.1.1.1 Disassembly. When considered necessary, disassembly of the machine shall be the minimum to safeguard parts that increase cubage. Disassembly shall be limited to parts that can be removed and reinstalled without special tools.

5.1.1.2 Cleaning and drying. The machine shall be cleaned by process C-1 and dried by procedure D-1 in accordance with MIL-P-116.

5.1.1.3 Preservative application. Interior surfaces of the machine subject to corrosion shall be coated with type P-10 preservative. All interior surfaces of the water or dewatering units subject to corrosion shall be coated with type P-3 preservative. All unpainted or unplated exterior surfaces of the machine shall be coated with type P-1 preservative of MIL-P-116.

5.1.1.4 Unit packaging. All openings of the machine shall be covered or wrapped with material conforming to MIL-B-121, type II, grade A, class 2 and sealed with tape conforming to PPP-T-76.

5.1.1.5 Spare parts. The spare parts shall be preserved and packaged in accordance with MIL-P-116. A close-fitting box conforming to PPP-B-636, W5c shall be utilized as the container. Cushioning, blocking and bracing shall be provided. The box shall be closed and strapped in accordance with the appendix to the box specification.

5.1.1.6 Electric motor. The electric motor shall be preserved in accordance with MIL-P-16298.

5.1.1.7 Gasoline engines. The gasoline engines shall be preserved in accordance with MIL-P-10062.

5.1.1.8 Technical publications. The technical publications shall be preserved in accordance with Method IC-1 of MIL-P-116.

DRY TYPES

Rec'd:

FF-P-00810A(GSA-FSS)
AMENDMENT-3
June 15, 1972
SUPERSEDING
AMENDMENT-2
March 22, 1972

AMENDMENT

TO

INTERIM FEDERAL SPECIFICATION

PULVERIZING MACHINE, PAPER
CLASSIFIED WASTE
(SECURITY)

This amendment was developed by General Services Administration Federal Supply Service, Standardization Division, Washington, DC 20406, based upon currently available technical information. The General Services Administration has authorized this amendment as part of Interim Federal Specification FF-P-00810A, dated March 1, 1971.

PAGE 1

Paragraph 1.1 - Delete text in its entirety and substitute the following:

"This specification covers paper pulverizing machines which are designed to conform to the standards for security equipment as set forth in the 'National Security Council Directive Governing The Classification, Downgrading, Declassification And Safeguarding Of National Security Information.' The pulverizing machines are intended for use as specified by the user activity."

PAGE 2

Paragraph 2.1 Military Specifications: - Delete "MIL-I-26600 - Interference Control Requirements."

Paragraph 2.1 Military Standards: - Add "MIL-STD-461 - Electromagnetic Intereference Characteristics, Requirements for Equipment."

PAGE 3

Paragraph 3.2.1: After last sentence add "The machine shall withstand the tests in 4.5."

Paragraph 3.4.5: Delete text in its entirety and substitute:

3.4.5 Dust level. The machine shall be of a design that keeps the dust level in the operator's area below 50 million particles per cubic-foot (see 4.5.1.1). If needed to meet this requirement, a dust collector, filter, or separator shall be furnished as a component part of the pulverizing machine. If collectors, filters, or separators are needed they shall be of a light weight metal or other suitable material and all points, including inlet and discharge piping shall be dust tight.

PAGE 4

Paragraph 3.8 - Delete text in its entirety and substitute the following:

"Electromagnetic interference suppression. The machine shall comply with the requirements of MIL-STD-461 for class IIB equipment."

PAGE 5

Paragraph 4.2: Delete text in its entirety and substitute:

4.2 Preproduction tests and inspections. The preproduction sample in each class and size the supplier intends to furnish shall be subjected to the test and inspections in 4.5. Failure to withstand any of these requirements shall provide cause for rejection.

FSC 3615

FF-P-00810A(GSA-FSS)
March 1, 1971
SUPERSEDING
Int. Fed. Spec. FF-P-00810(GSA-FSS)
June 15, 1965

INTERIM FEDERAL SPECIFICATION

PULVERIZING MACHINE, PAPER, CLASSIFIED WASTE (SECURITY)

This Interim Federal Specification was developed by Standardization Division, Federal Supply Service, General Services Administration, Washington, D. C. 20406, based upon currently available technical information. It is recommended that Federal agencies use this document in procurement and forward any recommendations for changes to the preparing activity at the address shown above.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers paper pulverizing machines which are designed to meet the document destruction criteria for classified information set forth in Executive Order 10501, as amended "Safeguarding Official Information in the Interest of the Defense of the United States." The machines are intended for use as specified by the user activity.

1.2 Classification.

1.2.1 Classes. The pulverizing machines shall be of the following classes, as specified (see 6.1).

Class I - 5mm residue measurement (in any dimension).
Class II - 3/32-inch residue (screen measurement).

1.2.2 Types and sizes. The pulverizing machines shall be of the following types and sizes, as specified (see 6.1).

Type A - Electric motor.
Type B - Gasoline engine.

Size 1 - 50 lb/hr, continuous operation.
Size 2 - 100 lb/hr, continuous operation.
Size 3 - 200 lb/hr, continuous operation.
Size 4 - 400 lb/hr, continuous operation.

2. APPLICABLE DOCUMENTS

2.1 The following documents of the issues in effect on the date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

Federal Specifications:

CC-M-641 - Motors; Alternating Current, Integral Horsepower.
TT-C-490 - Cleaning Methods and Pretreatment of Ferrous Surfaces for Organic Coatings.
PPP-B-601 - Boxes, Wood, Cleater-Plywood.
PPP-B-621 - Boxes, Wood, Nailed and Lock-Corner.
PPP-B-640 - Boxes, Fiberboard, Corrugated, Triple Wall.
PPP-C-650 - Crates, Open and Covered.
PPP-T-76 - Tape, Pressure-sensitive Adhesive Paper, Water Resistant (for carton sealing).

Federal Standards:

Fed. Std. No. 123 - Marking for Domestic Shipment (Civil Agencies).

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3. REQUIREMENTS

3.1 Preproduction sample. Before production is commenced, a sample of the finished commodity shall be submitted or made ready for approval of the contracting officer or his authorized representative for inspection and tests to determine compliance with this specification. The contractor shall notify the designated Regional Quality Control Division set forth in the notice of award of the availability of the sample. The approval of the preproduction sample authorizes the commencement of production, but does not relieve the contractor of responsibility for compliance with all applicable requirements of this specification. Production units shall not vary from the approved preproduction sample in design or construction without written approval of the contracting officer.

3.2 Pulverizing machines.

Class I - The processed material (residue) from class I machines shall consist of 85 percent fibrous bulk with no single piece of paper larger than 5mm in any dimension.
Class II - The processed material (residue) from the class II machines shall be of a fineness to pass through a 3/32-inch (mesh) test screen.

3.2.1 Materials and components. All materials and components for the pulverizing machines shall be new and the pulverizing machines shall be the manufacturer's latest design current at the time of delivery, except for such modifications as may be necessary to conform with the requirements of this specification. The machines shall be complete with all accessories for satisfactory operation. The design shall be such that fire, electrical, and explosion hazards are minimized.

3.3 Protective coating. The use of any protective coating that will crack, chip, or scale with age or extremes of climate and environmental conditions shall be avoided. Materials that are not nutrients for fungi shall be used to the extent practicable. Where such material that are nutrients for fungi must be used, such material, when specified (see 6.1), shall be treated with a fungicidal agent acceptable to the procuring activity.

3.4 Construction. The machine's frame shall be made of steel or cast iron or a combination of both and it shall be of sufficient strength to withstand vibrations experienced during the operation of the machine and to support the operating component parts. When hammers or blades are used to accomplish the pulverizing actions, they shall be of a specially heat-treated and hardened steel or other suitable hard alloy. The pulverizer unit encasement shall be of heavy steel plate, or heavy cast iron, or a combination of both. Encasement joints and shaft openings shall be sufficiently tight to prevent leakage of particles or dust.

3.4.1 Screen. A screen shall surround at least 1/2 the circumference of the pulverizer unit. The openings (mesh) in the screen shall be of a size to meet the applicable requirements in 3.2. The screen for the class I machine shall be permanently marked with the symbol "class I". The class II machine shall be permanently marked with the symbol "class II". All symbols shall be not less than 1/2-inch in height and shall be located on the screen so as to be readily visible to the operator for identification purposes.

3.4.2 Feed tray. The machine shall have a feed tray of a design that makes it impossible for the operator to reach into the pulverizer unit while the unit is operating. The tray shall be not less than 20 inches long and 10 inches wide. A conveyor arrangement shall be provided when specified (see 6.1).

3.4.3 Blower or vacuum pump. Either a blower or a vacuum pump may be used to discharge the processed material. When a blower is used its encasement shall be of heavy steel plate and encasement joints shall be sufficiently tight to prevent escape of dust and lint. If necessary, the joints shall be sealed to obtain this condition. The fan for the blower shall have either ferrous or non-ferrous blades attached to a rotating shaft. The blades shall be balanced on the shaft to eliminate vibration. If a vacuum pump is used the tube or hose connection to the discharge receptical shall be dust tight.

3.4.4 Discharge hopper. The discharge hopper shall be of a type and size capable of handling the processed material at a rate at least equal to the rated hourly capacity of the pulverizing machine. Machines which discharge the processed material by vacuum through a hose into an external waste container shall dispose of the material at not less than the rated hourly capacity of the pulverizing machine.

3.4.5 Dust collector. A dust collector shall be provided with the machine that shall be capable of keeping the dust level in the operation's area below 50 million particles per cubic-foot and below explosion level. The collector shall be of light weight steel and all points, including inlet and discharge piping shall be dust tight.

3.9 Height and weight. The height of the machine, excluding dust collector, shall not exceed the maximum dimensions specified in table I. The weight, with dust collector, shall not exceed 2,500 pounds. The weight of the machine (with dust collector) shall be suitably marked on the exterior surface of the machine so as to be readily visible.

TABLE I. Height, maximum

Size	Height in inches
1	48
2	52
3	72
4	90

3.10 Lubrication. Lubrication fittings shall be provided for all bearings not permanently sealed. Protection shall be provided against leakage of the lubricating agent into the pulverizer unit. The lubricants used shall be suitable to the varied climatic conditions likely to be encountered in areas where the machine is used.

3.11 Pretreatment, color and finish. All exterior ferrous metal surfaces shall be prepared for painting in accordance with any of the types in TT-C-490. The color shall be the manufacturer's standard and the finish coat shall be applied in accordance with good commercial practices.

3.12 Identification label. A metallic identification label shall be securely affixed to an external surface of the machine. The label shall show the machine's model and serial number, class number (I or II), year of manufacture, manufacturer's name or trademark, and Government contract number. Lettering on labels shall be clear and legible and shall resist erasure.

3.13 Parts and interchangeability. Parts subject to replacement because of wear or accidental damage shall be available from the manufacturer. All replaceable parts shall be manufactured to definite standards, tolerances, and clearances so that parts may be replaced or adjusted without modification. To the extent possible, all parts shall be permanently and legibly marked with the manufacturer's part number.

3.14 Workmanship. The pulverizing machine, including all parts and accessories, shall be fabricated and finished in accordance with good workmanship practices and the machine shall be free of any defects or features which might affect its appearance, operation, or serviceability.

3.15 Operation's instruction manual. An instruction manual for use by operating and maintenance personnel shall be provided with each machine supplied by the manufacturer. The manual shall contain all instruction necessary for the assembly, operation, maintenance, and minor repair of the machine. The manual shall contain a section which clearly identifies all parts and components by description and part number.

4. QUALITY ASSURANCE PROVISIONS

4.1 Inspection responsibility. Except as otherwise specified, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own or any other inspection facility or service acceptable to the Government. Inspection records of the examinations and tests shall be kept complete and available to the Government as specified in the contract or order. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to the prescribed requirements.

4.1.1 Component and material inspection. In accordance with 4.1, the supplier is responsible for insuring that components and materials used are manufactured, tested, and inspected in accordance with the requirements of referenced subsidary specifications and standards to the extent specified or, if none, in accordance with this specification.

4.2 Preproduction and acceptance tests and inspections. The preproduction sample in each class and size the supplier intends to furnish and each machine offered for acceptance under a contract or order shall be subjected to the tests and inspections in 4.4.1 through 4.4.3. Failure to withstand any of these requirements shall provide reason for rejection.

4.3 Inspection of preparation for delivery requirements. An inspection shall be made to determine that the preservation, packaging, packing and marking comply with the requirements in section 5 of this specification. Defects shall be scored in accordance with table II. For examination of interior packaging the sample unit shall be one shipping container fully prepared for delivery, selected at random just

5.1.2 Level B. The machine shall be preserved and packaged as specified in 5.1.1, except that no preservative will be required, unless recommended by the manufacturer.

5.1.3 Level C. The machines shall be preserved and packaged in accordance with the suppliers commercial practice providing this insures protection for the machine during shipment and provides safe delivery at its destination.

5.2 Packing. Packing shall be level A, B, or C as specified (see 6.1).

5.2.1 Level A. Each complete machine shall be packed in a close-fitting box conforming to PPP-B-601, overseas type, PPP-B-621, class 2 or PPP-B-640, class 2, grade A. Blocking and bracing shall be utilized as required to prevent movement of the contents during shipment and storage. The boxes shall be closed and strapped in accordance with the applicable specification or appendix thereto. When the gross weight exceeds 250 pounds, skids shall be provided as specified in PPP-B-621. When the gross weight exceeds 500 pounds the machines shall be packed in a crate conforming to PPP-C-650. A shroud in accordance with the appendix to the crate specification shall be provided.

5.2.2 Level B. Each complete machine shall be packed in a close-fitting box conforming to PPP-B-601, domestic type, PPP-B-621, class 1 or PPP-B-640, class 1, grade B. Blocking and bracing shall be utilized as required to prevent movement of the contents during shipment and storage. The boxes shall be closed and strapped in accordance with the applicable specification or appendix thereto. When the gross weight exceeds 200 pounds, skids shall be provided as specified in PPP-B-621. When the gross weight exceeds 500 pounds the machines shall be packed in a crate conforming to PPP-C-650. A shroud in accordance with the appendix to the crate specification shall be provided.

5.2.3 Level C. The machines shall be packed to insure carrier acceptance and safe delivery at destination in containers complying with the rules and regulations applicable to the mode of transportation.

5.3 Marking.

5.3.1 Civil agencies. In addition to markings required by the contractor or order, the interior packages and shipping containers shall be marked in accordance with Fed. Std. No. 123.

5.3.2 Military activities. In addition to markings required by the contract or order, the interior packages and shipping containers shall be marked in accordance with MIL-STD-129.

6. NOTES

6.1 Ordering data. Purchasers should exercise desired options offered herein, and procurement documents should specify the following:

(a) Title, symbol, and date of this specification.
(b) Class, type, and size required (see 1.2.1 and 1.2.2).
(c) Whether fungicidal treatment required and type required (see 3.3).
(d) Whether conveyor required (see 3.4.2).
(e) Motor electrical characteristics required, if other than specified (see 3.6.1).
(f) Level of preservation, packaging, and packing required (see 5.1 and 5.2).

GSA DC 71-8852

GENERAL SERVICES ADMINISTRATION - FEDERAL SUPPLY SERVICE

SPECIFICATION COMMENT SHEET

BUDGET BUREAU NO. 29-R0175

INSTRUCTIONS

This form provides a way for users of this specification to inform the originator of problems encountered in its use. It is not to be used to request changes to accommodate proprietary features. All comments will be considered and appreciated, but please do not expect a reply. To comment: detach, complete, and mail to: General Services Administration, FSS (FMSO), Wash., DC 20406.

NOTE: Comments on this form do not constitute or imply authorization to waive any part of the document or serve to amend contractual requirements.

1. SPECIFICATION

FF-P-00810A(GSA-FSS) Pulverizing Machine, Paper, Classified Waste (Security)

2. CONTRACT NO. *(If any)*	3. QUANTITY ON CONTRACT *(Optional)*	4. DOLLAR VALUE *(Optional)*

5. GENERAL NATURE OF PROBLEM *(e.g., inspection difficulties, manufacturers unable to meet tolerances, containers collapse under normal warehousing conditions, etc.)*

6. SPECIFIC REQUIREMENTS AFFECTED *(Include paragraph number and lines of wording)*

7. SPECIFIC PROBLEMS *(e.g. tests in 4.2.2 will not assure that the battery will last required time; temperature ranges in table 2 do not conform to commercially available items.)*

8. RECOMMENDATIONS

9. NAME OF MANUFACTURER, ASSOCIATION, GOVT., AGENCY, ETC.	10. ADDRESS *(Number, Street, City, State and Zip Code)*

11. NAME AND TITLE OF SUBMITTER	12. DATE

FORM GSA FEB 69 2200